REMARKS

Claims 5-9, 12-13, 16 and 20 are currently pending in this application. Claims 5, 6, 9 and 20 have been amended to clarify the invention. The abstract has also been amended. No new matter has been added as a result of these amendments. Consideration and entry of these amendments is respectfully requested.

DOCKET NUMBER

Applicants request that the current docket number 11014-24/MG be changed to API-02-05-US.

OBJECTION TO SPECIFICATION

The abstract was objected to due to the term "said" which has been deleted. Accordingly, this objection is moot.

REJECTION UNDER 35 U.S.C. § 101

Claim 9 stands rejected under 35 U.S.C. § 101. Claim 9 has been amended to indicate that the host cell is "isolated", as suggested by the Examiner. Accordingly, Applicants respectfully request that the rejection be withdrawn.

REJECTION UNDER 35 U.S.C. § 112, FIRST PARAGRAPH

Claim 20 stands rejected under 35 U.S.C. § 112, first paragraph. The Examiner alleges that the specification, while being enabling for a method of killing prostate cancer cells in a mammal, does not reasonably provide enablement for treating any cancer. Claim 20 has been amended such that the cancer to be treated is prostate cancer. Accordingly, Applicants respectfully request that the rejection be withdrawn.

REJECTION UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

Claims 5-6, 8-9, 12-13, 16 and 20 stand rejected under 35 U.S.C. § 112, second paragraph. The Examiner alleges that the claims are indefinite with respect to the terms/phrases "Xn", "substantial sequence homology" (claim 6), and "a nucleic acid

sequence as shown in any one of SEQ ID NOS:7-9" (claim 6). Applicants respectfully traverse these rejections as indicated below.

With respect to the term "Xn", Applicant respectfully suggest that the term is clear to those of skill in the art. Formula I of claim 5 indicates that "n" indicates that the first "X" residue is optionally included in the sequence of the peptide; and that "X" is any amino acid. Applicants maintain that it would be clear to one of skill in the art that that the "X" portion of the "Xn" term is any amino acid, as indicated by the claim. As such, Applicants respectfully request that this rejection be withdrawn.

Regarding the phrases referred to in claim 6, the claim has been rewritten to address the Examiner's concerns. As such, Applicants respectfully request that this rejection be withdrawn.

REJECTIONS UNDER 35 U.S.C. § 102, SECOND PARAGRAPH

Claims 5-6, 12-13, 16 and 20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Schlom et al. (WO 97/35021). Applicants respectfully traverse this rejection as indicated below.

The Examiner alleged that Schlom anticipates the claimed invention in that a DNA sequence of Schlom (SEQ ID NO.:5) contains the sequence of SEQ ID NO.:9 of the present application. Claim 5 relates to a nucleic acid encoding a PSA derived peptide. As defined by Formula I, the encoded peptide is at most nine amino acids in length. Schlom's SEQ ID NO.:5 of Schlom encodes a 30 amino acid polypeptide. As such, Schlom does not anticipate the instantly claimed invention. Accordingly, Applicants respectfully request that the rejection be withdrawn.

REJECTIONS UNDER 35 U.S.C. § 102(e)

Claims 5-9, 12-13, 16 and 20 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Schlom et al. (U.S. Pat. No. 6,165,460) as evidenced by Schlom et al. (WO 97/35021). Applicants respectfully traverse this rejection as indicated below.

For the reasons stated above, Applicants respectfully maintain that WO 97/35021 does not anticipate the instantly claimed invention. Due to the deficiencies of WO 97/35021 with respect to the instantly pending claims, the reference cannot be properly

used as evidence to support U.S. Pat. No. 6,165,460 in the instant rejection. Accordingly, Applicants respectfully request that this rejection be withdrawn.

CONCLUSIONS

Consideration and entry of this amendment is respectfully requested. Applicants respectfully maintain that the pending claims are now in condition for allowance and request that a Notice of Allowance for the pending claims. If the Examiner has any questions or believes a discussion would expedite prosecution, he is encouraged to contact the undersigned at 570-839-5446.

Respectfully submitted,

AVENTIS PASTEUR

Date: June 19, 2003

Patrick J. Halloran
Reg. No. 41, 053
Aventis Pasteur, Inc.
Intellectual Property - Knerr Building
One Discovery Drive
Swiftwater, PA 18370
Telephone: (570) 839-5446
Facsimile: (570) 895-2702

MARKED-UP COPY OF THE AMENDED CLAIMS

5. An isolated nucleic acid molecule encoding an [PSA peptide as described in claim 1] immunogenic peptide derived from prostate-specific antigen, the peptide being capable of eliciting an immune response for treating prostate cancer and consisting of an amino acid sequence as defined by Formula I:

X_n-X_1-X-X-X-X-X-X-X-X-X_2

wherein

n=0 or 1 ;

each X_1 is independently selected from leucine or methionine;

each X_2 is independently selected from valine or leucine; and

each X is independently selected from any amino acid,

and fragments, elongations, analogs or derivatives of the PSA derived peptides.

6. (Amended) An isolated nucleic acid encoding a PSA derived peptide according to claim 5 comprising:

a) [a] the nucleic acid sequence as shown in any one of SEQ ID NOS.:7-9 wherein T [can] may also be U;

b) a nucleic acid sequence that is complementary to a nucleic acid sequence of (a);

c) a nucleic acid sequence that has [substantial sequence] at least 90% homology to a nucleic acid sequence of (a) or (b);

d) a nucleic acid sequence that is an analog of a nucleic acid sequence of (a), (b), or (c); or

e) a nucleic acid sequence that hybridizes to a nucleic acid sequence of (a), (b), (c), or (d) under stringent hybridization conditions.

9. (Amended) An isolated host cell transformed with an expression vector of claim 8.

20. (Amended) A method of treating prostate cancer comprising administering to an animal an effective amount of a peptide in accordance with claim 5.